DOCUMENT RESUME

ED 466 180 IR 021 251

AUTHOR	Mahmoud, Abdelrahman Kamel Abdelrahman
TITLE	Using Computers in the Programming of Qualifying Teachers of Arabic in the Faculties of Education in Egypt.
PUB DATE	2001-00-00
NOTE	7p.; In: ED-Media 2001 World Conference on Educational Multimedia, Hypermedia & Telecommunications. Proceedings (13th, Tampere, Finland, June 25-30, 2001); see IR 021 194. Title in table of contents: Using Computers in the Programs of Qualifying Teachers of Arabic in the Faculties of Education in Egypt.
AVAILABLE FROM	Association for the Advancement of Computing in Education (AACE), P.O. Box 2966, Charlottesville, VA 22902 ($40, AACE members; $50, nonmembers). Tel: 804-973-3987; Fax: 804-978-7449; Web site: http://www.aace.org.
PUB TYPE	Reports - Research (143) -- Speeches/Meeting Papers (150)
EDRS PRICE	MF01/PC01 Plus Postage.
DESCRIPTORS	*Arabic; Computer Literacy; *Computer Uses in Education; *Educational Technology; Foreign Countries; *Language; Linguistics; *Preservice Teacher Education
IDENTIFIERS	Egypt

ABSTRACT

In Egypt, teachers of Arabic do not study the computer in the syllabus of their preparation in Faculties of Education. Moreover, they do not use it in studying any of the syllabi until they graduate as teachers. This issue seems to have been lost between the extreme simplification of technicians from one side, and the sharp overlook of linguistics from the other side. The issue is inevitably difficult and interrelated so that simple solutions or tricks will not do. It is also so important and vital for the information society where the labor of information, its industries, and services will prevail. Behind this research is an invitation to modernize the outlook of the Arabic language as a whole. It is a demand that corresponds to the duality of the computer and the English language and many other languages, such as Russian, French, and German. Such a demand requires a full revision of all sides of the linguistic system where the mechanic system imposes on the topic, it handles a degree of accuracy and completion without which it cannot be subjected to the logic or the machine. Use of the computer in preparing the teacher of Arabic is based on showing the relationship of Arabic to a computer. This requires subjection of accurate science handling. The attempt at adjusting the linguistic theorizing of Arabic and handling it mechanically is the aspect that helps to reveal the position of super theoretical knowledge on the side of scientific maturity of applied sciences. This research is an attempt at showing the duality of culture that prevails over Arab societies. Such a duality is one of the main reasons for the deformity of culture and scientific view, and the deformity of the intellectual and educational product. (AEF)

Reproductions supplied by EDRS are the best that can be made
from the original document.

Using Computers in the Programming of Qualifying Teachers of Arabic in the Faculties of Education in Egypt

PERMISSION TO REPRODUCE AND DISSEMINATE THIS MATERIAL HAS BEEN GRANTED BY

G.H. Marks

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

Dr.Abdelrahman Kamel Abdelrahman Mahmoud
Department of Curricula and Methodology
Cairo University Faculty of Education in Fayoum
Egypt
abdelrahman@internetfayoum.net

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)
✓ This document has been reproduced as received from the person or organization originating it.
☐ Minor changes have been made to improve reproduction quality.
• Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

Abstract :In Egypt, the teacher of Arabic does not study computer in the syllabus of his preparation in Faculties of Education. Moreover, he does not use it in studying any of the syllabi till he graduate as a teacher .
This research attempts to pointing out the importance of using computer in qualifying the teacher of Arabic and showing some primary aspects of the relationship of Arabic language to computer.

This issue seems to have been lost between the extreme simplification of technicians from one side, and the sharp overlook of linguistics from the other side; the issue is inevitably difficult and interrelated so that simple solutions or tricks will not do. It is also so important and vital to the extent that its importance is in the first priorities of preparing our Arabic societies for the information society where the labour of information, its industries and services will prevail.

Behind this research is on invitation to modernize the outlook of the Arabic language as a whole. It is a demand that corresponds to the duality of computer and English language, and many other languages such as Russian, French and German. Such a demand needed a full revision of all the sides of the linguistic system, where the mechanic system impose on the topic it handles a degree of accuracy and completion without which it can not be subjected to the logic or the machine. Maybe in our approach to this problem on this level an indication of how the computer may compensate for our linguistic backward: theoretically, regulationally and implementationally . Using computer in preparing the teacher of Arabic is based on showing the relationship of Arabic to computer; this requires the subjection of accurate science handling.

The attempt at adjusting the linguistic theorizing of Arabic and handling in mechanically is the aspect that helps to reveal the position of super theoretical knowledge on the side of scientific maturity of applied sciences.(16), (19)

The present research is an attempt at showing the duality of culture which prevails over our Arab societies; such duality is one of the main reasons of the deformity of our cultural and scientific view, and the deformity of our intellectual and educational product.

ED 466 180

Introduction

In Egypt, the teacher of Arabic does not study computer in the syllabus of his preparation in Faculties of Education. Moreover, he does not use it in studying any of the syllabi till he graduate as a teacher

This research attempts to pointing out the importance of using computer in qualifying the teacher of Arabic and showing some primary aspects of the relationship of Arabic language to computer.

This issue seems to have been lost between the extreme simplification of technicians from one side, and the sharp overlook of linguistics from the other side; the issue is inevitably difficult and interrelated so that simple solutions or tricks will not do. It is also so important and vital to the extent that its importance is in the first priorities of preparing our Arabic societies for the information society where the labour of information, its industries and services will prevail.

Behind this research is on invitation to modernize the outlook of the Arabic language as a whole. It is a demand that corresponds to the duality of computer and English language, and many other languages such as Russian, French and German.

IR021251

BEST COPY AVAILABLE

Such a demand needed a full revision of all the sides of the linguistic system, where the mechanic system impose on the topic it handles a degree of accuracy and completion without which it can not be subjected to the logic or the machine. Maybe in our approach to this problem on this level an indication of how the computer may compensate for our linguistic backward: theoretically, regulationally and implementationally .

The English basis imposed technical restrictions on the mechanic handling of most languages. Such limits reach the utmost with the broadening of the field of linguistic variety between these languages and that of the basics i.e. English. English and Arabic represent from the point of view of computers two extremes; this, in turn, led to the emergence of many technical obstacles in arabizing computers which made of language another barriers added to another group of barriers separating the Arab user from that new comer which emerged and grew in a various linguistic milieu. [1]

Language is the container of thought. The structure and system of language impose a certain pattern of method of thought on its users; this is known as linguistic determinism. Change in any language requires an important change in the nature of language which the society uses for the existence of a mental revolution necessitates the existence of a linguistic on first.(17:205), (15), (18), (13)

Computer illiteracy in our Arab societies does not only require the availability of Arabic programmed language but also the existence of practical means to use Arabic language itself to converse with the computer.

Using computer in preparing the teacher of Arabic is based on showing the relationship of Arabic to computer; this requires the subjection of accurate science handling.

The attempt at adjusting the linguistic theorizing of Arabic and handling in mechanically is the aspect that helps to reveal the position of super theoretical knowledge on the side of scientific maturity of applied sciences.(16), (19)

The present research is an attempt at showing the duality of culture which prevails over our Arab societies; such duality is one of the main reasons of the deformity of our cultural and scientific view, and the deformity of our intellectual and educational product.

Previous Studies:

There are various previous studies which pointed out the importance of using computer in teaching generally. (8), (9), (11), (6), (7)

The impact of teaching expertise on educational software selection: An examination of the strategies used by teachers and novices in their approach to software selection

Expertise in teaching has been associated with a comprehensive knowledge base, well organized schemas resulting from a deep understanding of the problem, to concrete situations, and the ability to recognize features of the problem central to the solution (Borko & Livingston, 1989; Leinhardt and Greeno, 1986; Sabers, Cushing, & Berliner, 1991.) The introduction of computer technology to the classroom has added, for some teachers, an unfamiliar dimension to the classroom environment, a dimension in which their problem solving expertise may not be as effective. This study examines the impact of computer technology on teachers' approaches to the problem of evaluating educational software packages for instructional merit. Sixteen teachers and 14 novices evaluated two educational software packages for educational merit. Two of the teachers had expertise in educational technology. The remaining teachers and the novices had no formal training in using educational technology. Participants' “think-aloud” responses were recorded, by audio and video tape, as they evaluated the software, and their responses to a brief interview and survey were collected. Teachers generated a greater percentage of technical and pedagogical statements, but did not differ significantly from Novices in their attention to specific Pedagogical variables. A qualitative analysis revealed that teachers and novices had different approaches to the problem solving task directed in part by schemas they held for effective instruction. Further, the technology-trained teachers appeared to have greater access to their schemas for effective instruction than those teachers for whom the computer was an unfamiliar environment. These findings suggest that technology training may need to be an integral part of teacher education programs.

Computer skills for pre-service teachers: Perceptions and implications for curriculum development

The purpose of this study was to examine the national profile of necessary technology skills for teachers and the perceptions of school administrators, cooperating teachers, and student teachers regarding specific technology skills needed by pre-service teachers. A survey of literature provided a national profile through standards adopted by the National Council for Accreditation of Teacher Education. The perceptual data, compiled from a survey instrument developed for this study, were self-reported and limited to administrators, cooperating teachers, and student teachers currently participating in a teacher education program in rural northwestern Pennsylvania. Descriptive data analysis, including survey mean scores data and standard deviation were utilized to determine existing technology use and the profiles of perceptions from target populations. Mean rank analysis was applied utilizing the Kruskal-Wallis procedure to identify significant differences among sample populations. The results showed that perceptions of necessary specific technology skills vary significantly among populations. Also, notable variance was found within target populations, however, a number of technology skills were clearly identified as priorities for pre-service teachers. The data revealed that word processing skills have the highest priority among groups. Other high priority skills included use of e-mail, accessing the internet, utilizing CD ROMs, and knowledge of computer terminology. Low priority skills included knowledge of programming languages, MS DOS, web page design, Ethernet function, and reformatting hard drives. The blend of priorities identified in this study and the perceptions of experts in the field of technology in education, grounded in the general standards advocated by NCATE, should be the basis of technology curriculum for pre-service teachers in northwestern Pennsylvania. The results of this study were consistent with literature and research that suggests technology curriculum in teacher education should be developed with a wide variety of populations in order to best reflect the needs of pre-service teachers and society.

The effects of a self-paced modular computer-training program on in-service teachers' attitudes and sense of computer self-efficacy

The issue of technology integration for schools can no longer wait as business, government, and education call for students to be prepared to use the tools of the 21<super>st</super> century. Pre-service teachers are presently receiving some training with the publication of the National Council for Accreditation of Teacher Education standards for technological literacy. In-service teachers are also being called to meet the needs of the 21<super>st</super> century student, but, lacking the teacher preparation training in technology and having honed successful classroom strategies without the use of technology, they are finding the acquisition of these skills more difficult. As professional development programs begin to address the needs of the in-service teacher, the issues of attitudes toward computers and computer self-efficacy must be considered. Successful training programs must address the special needs of in-service teachers, a population of adult learners with little experience or exposure to the digital world. Investigated in this study were the effects of a self-paced modular computer-training program on teacher attitudes and computer self-efficacy. Forty-two in-service teachers at St. Paul's Episcopal School participated in a four-module self-paced computer-training program that included modules covering an introduction to computers, Windows 95, word processing, and telecommunications. Two computer attitudes instruments were used: Delcourt and Kinzie's 1993 Attitudes Toward Computer Technologies scale which measured comfort/anxiety and perceived usefulness constructs and Shaft and Sharfman's 1995 Attitudes Toward Computers Instrument which measured a global computer attitude construct. These attitude measures were administered at the beginning of the self-paced computer-training program and again at the completion of the last module. The Compeau and Higgins' 1995 Computer Self-Efficacy measure was administered upon completion of each module for the purpose of assessing the impact of each module on the participants' sense of computer self-efficacy. Results indicate that participation in a training program that meets the needs of the inservice teacher and includes self-pacing, independent and collaborative learning opportunities, and the presence of support personnel positively impacts the attitudes of comfort with computers and perceived usefulness of computers as well as a global attitude toward computers. The participants' sense of computer self-efficacy is also impacted positively. In-service teachers who feel positive toward and efficacious with computers are more likely to feet comfortable bringing the tools of technology to their classrooms and their students.

A comparison of paper-based, computer-based, and voice-mail study media in relationship to student achievement in information systems courses

The problem investigated in this study was the use of paper-based, computer-based, and voice-mail-based study media and their relationship to student achievement in information systems courses. Providing information on the usefulness of study media to schools, businesses, and textbook publishers to assist them in decision making was central to this study. This study may be useful to professionals interested in the larger framework of comparing study media and test performance. This research also examines the relationship between student achievement and a particular study medium when compared with number of questions studied, amount of study time used, age, income, gender, distance from campus, grade-point average, full-time employment, part-time student classification, previous computer skills, and access to a computer. An experiment was conducted using a quasi-experimental posttest-only control group design. Statistical procedures were used to pretest the data to

determine randomness of the groups. Two information systems courses were used to test each study medium. An introductory business course in information systems and an advanced course in which all students would have computer experience were used to test each study medium. This experiment was conducted at a public university. The majority of the students were part-time students who were employed full-time. The university does not have residential students. Quiz, midterm examination, and final examination grades were used as the measure of student performance to determine if there was a significant relationship between study medium and student achievement. The hypothesis that there is a significant relationship between study medium and student achievement was not rejected.

Utilization of computer technology by teachers at Carl Schurz High School, a Chicago public school (Illinois)

This case study investigated computer use by teachers at Schurz High School and identified the factors affecting their use. Current and desired computer skills were also evaluated to make appropriate recommendations regarding inservice training to help increase the use of computers among faculty at Schurz. Descriptive data was gathered on Schurz by interviews, sign-up sheets, software documentation, and reports and pertained to demographics, academic probation, technology plan, school improvement plan, staff development, funding, computer inventory, computer labs, vocational educational programs, and technology support. A survey was used to gather descriptive information on how computers were used in classrooms and interactive labs. Survey items were designed and revised to gather data relevant to seven research questions. The population for this study involved the 133 classroom teachers on staff at Schurz High school during the first semester of the 1998–99 school year. One hundred usable surveys represented a response rate of 75%. The respondents represented 12 departments in the school, including business/computer education, math, physical education, English, special education, technical, foreign language, science, music, social studies, art, and English as a Secondary Language. The major findings of this study show that the vast majority of teachers used a computer for personal or school use; almost all teachers with 1–10 years of teaching used a computer; teachers with 31–35 years of teaching represented the largest group of noncomputer users; the highest percentage of use for both computers and the Internet was for preparing instructional materials; the lowest percentage of use of computers and the Internet was for instructional use for students; teachers used word processing the most for preparing instructional materials, for instructing students in the classrooms, and in the interactive labs; the second greatest computer use was for web searching; and few teachers used software other than word processing in their classrooms. The factors that affected computer use included the direct relation between use of computers and number of computers in the classroom; lack of computer projection devices in the classrooms; lack of duty-free time to prepare lessons including technology; other educational commitments; and insufficient teacher training, support, and follow-up.

Secondly, there are various previous studies which pointed out the importance of using computer in teaching Arabic in particular such as the following :

1. Analysis of heritage for determining the date of its emergence and its source; the ***Illiade*** as a myth was analysed by computer; it was found that it is composed of 15694 lines of verse, 112000 words and it was ascertained that Homer is its poet. Also the plays of Shakespeare have been analysed to ensure that he is the writer.(10)

2. Thematic identification of the degree of influence of men –of- letters on others. The most well known uses of computer in that field is that study which was performed to know how far the poet Shelly was influenced by his predecessor Milton. The statistic comparsion of Shelly's famous poem ***"Prometheus unbound"*** and Milton's ***"Paradise Lost"*** the sphere of common lexicon and the relative distribution of the ranges of the two poets using of them. A comparison of the sentences of both poems -which included the most common lexicon- was performed to give a quantitative criterion of Shelley's being influenced by his predecessor.(10)

3. **A comparative discourse analysis of output produced by learners of German in a chatroom and a face-to-face discussion group, and its potential implications for foreign language instruction.**

The purpose of this research project is to contrast written German discourse as it was produced by 63 learners of German as a foreign language in 4<super> th</super> semester German in a synchronous computer-mediated communication environment, i.e. in a chatroom, with the oral discourse produced by 63 learners of German in a small group face-to-face discussion groups. This study uses a variety of measurements to better describe and define the language produced in chatrooms and face-to-face discussion groups. First, the level of participation is measured by coding the data with communication-units, or c-units. The final statistical analysis indicated that the different levels of participation in the chatroom and the face-to-face discussions were significantly different. Second, this study

hypothesizes that the output produced in real-time synchronous computer-mediated communication constitutes a new type of orality in a virtual world, a hybrid between spoken and written discourse. Communication in a chatroom environment allows students to write as they would speak. The written output produced in a chatroom during this experiment shows features of oral language. The term <italic>virtual orality</italic> describes this type of orality in a virtual space. <italic>Virtual orality</italic> is derived from Walter Ong's <italic>secondary orality</italic>, which delineates an orality that is produced by speakers in our society who have the awareness and consciousness of literacy, i.e. they live in a society that is knowledgeable of and influenced by writing. In the third part of this study, the Type-Token Ratio is used to measure the variety of different words in relation to the total number of words produced. In an effort to determine the language level of the students, this study uses a scale of language stages as they are described by Erwin Tschirner, followed by an analysis of verb morphology, and attributive and predicative adjectives. The last chapter asks if and how computer-mediated communication can be productively employed in a foreign language teaching environment. Tentative recommendations about the use of real-time computer-mediated communication and face-to-face discussion groups for instructors conclude this study.

4. Reading instruction of first-grade students within a whole learning reading program using CD-ROM versus traditional print storybooks

effective in increasing beginning readers' sight word vocabularies (word list) and their ability to retell a story. This outcome was particularly found to be true for low achievers, who performed better on these tasks using electronic books than traditional print. Students generally gained more on reading from context (word passage) and answering questions using traditional print.

This researcher investigated the use of technology within a whole learning reading program to determine whether statistically significant differences in reading achievement develop between instruction using traditional text in a classroom setting and electronic print in the form of books on CD-ROM used in a computer lab setting. Participants were 92 first-grade students from a large, semi-rural elementary school in Orange County, New York. All of the subjects received instruction under both control and treatment conditions. Subjects scores on a district-wide fall reading matrix were used as pre-treatment observations to determine equality of groups. Three days following a sequence of instruction led by the teacher were conducted using traditional and electronic print books. Three books were completed under each method/medium. The books on CD were selected from Level B in the Scholastic Beginning Literacy System WiggleWorks. The same books used on CD were used in traditional print. Post testing was conducted individually after instruction on each book. Assessment included a 20 item word list, a 70–80 word passage (both taken from the text of the book used), 5 factual comprehension questions, and a retelling. Information on or about the computer's effectiveness as a source of language development through pre-literacy experiences to increase sight word vocabulary and in improving comprehension were addressed. The study served to evaluate the effectiveness of books on CD as a delivery mode for whole learning instruction in reading. Results indicate that the use of books on CD are particularly

5- Synchronous computer-mediated communication in the intermediate foreign language class: A sociocultural case study

Synchronous computer-mediated communication (also known as <italic>chatting </italic>) has become an extremely popular Internet application in contemporary society, as a way to communicate electronically with persons from all corners of the globe. While members of academic and business communities are increasingly using synchronous CMC to hold serious discussions, conferences and classes, chat communication is still for the most part recreational in character (Werry, 1996). Only recently have educators come to realize that chatting may provide valuable learning experiences to its participants. The purpose of this study was to investigate interactional and linguistic features of communication among intermediate-level Spanish learners and their teacher in a synchronous CMC context. The study evoked some fundamental constructs of Vygotskian sociocultural theory in order to describe and explain how learners and their teacher collaborated with each other to co-construct meaning in chat rooms. General patterns of learner-learner and learner-teacher interaction were analyzed, as well as learner and teacher perceptions of the use of chat as a language learning tool, and finally, changes in learner output over time. First, it was found that learners appropriated the chat room environment to create their own community of language practice in which they transformed tasks that were assigned to them, went off-task when they wanted to, and had the opportunity to make use of language functions that are not typical of the L2 classroom environment.

Second, the learners and the teacher put forth a great deal of perceptions regarding the use of chat rooms in the L2 class, which brought an emic perspective to the study. Third, the Spanish verbal morphology system served as a

springboard for illustration and discussion of changes in learner output over time. Specifically, learners made unique uses of the Spanish verbal morphology system, which the emergent grammar perspective was called upon to explain. Also, learners branched out from overuse of the Spanish present tense, gradually using the other available verb tenses and moods more of the time. The study suggests pedagogical uses for synchronousCMC,aswellasfutureresearchdirections

6. The relationship of universal grammar to second language acquisition: A meta-analysis

The purpose of this investigation was to synthesize (by means of a meta-analysis) the results of primary research studies, which examined the relationship between Universal Grammar and Second Language Acquisition, in order to discern whether second language learners do have full access to Universal Grammar. In order to proceed with this investigation, primary research studies were retrieved through a multiple channel approach: a combination of manual and computer searches. A set of criteria was established to determine which of the retrieved studies would be included in this meta-analysis. Using these criteria, fifteen primary research studies could be included in this meta-analysis. The unit of analysis for this study is the sample unit of analysis. These fifteen studies yielded 22 independent samples, on which the subsequent analyses were performed. Using effect sizes (Cohen's d-index) as the measure of the outcome of the primary study's sample(s), 70 effect sizes were generated. Each of these effect sizes was weighted and averaged to produce an overall effect size for this meta-analysis. The overall mean effect size produced was 1.25 with a standard deviation 0.68, a very large effect size. In addition, a confidence interval was calculated on this mean effect size. The lower limit was 1.17, and the upper was 1.31. Based on the premise that the mean effect size would approach zero if second language learners do have full access to Universal Grammar, the above results indicate that they do not. Moreover, the confidence interval test does not contain zero, which confirms that second language learners do not have full access to Universal Grammar. Sixteen variables associated with the Publication, Participant and Design characteristics were analyzed to determine if any of these variables had an influence on the effect size generated for each sample. This examination shows that the Target Language being tested does have an influence on the effect size associated with each particular sample. Overall, the results of this investigation contribute to a better understanding of the relationship of Universal Grammar to Second Language Acquisition. Implications for future research are discussed. In addition, implications for teaching of a Second Language are discussed.

From such previous studies, we see clearly the importance of using computer in Education in general and in teaching language in particular; while the teacher of Arabic does not study computer as a syllabus in the programms of his preparation in the Faculties of Education in Egypt and he does not use it in studying any of the other syllabi till he graduated as a teacher.
It has appeared clearly the impotence of the printed book as a means of presenting the educational matter and also the inefficiency of the other conventional educational aids in face of the inflation of the educational matter and its complexity. All this makes us suggest the computer as a logical substitute to increase the efficiency of education, the productivity of education and facing the deeply rooted problems from which educational system suffer especially those of surficial and demanding nature. Many view the computer as a source of hope to make the inevitable change that has long been waited for in the programmes of preparing the teacher in general and the teacher of Arabic in particular. Our success in this depends, primarily, on how successful we are in preparing flexibly the technical means of the requirements of teaching Arabic language

U.S. Department of Education
Office of Educational Research and Improvement (OERI)
National Library of Education (NLE)
Educational Resources Information Center (ERIC)

NOTICE

Reproduction Basis

☒ This document is covered by a signed "Reproduction Release (Blanket)" form (on file within the ERIC system), encompassing all or classes of documents from its source organization and, therefore, does not require a "Specific Document" Release form.

☐ This document is Federally-funded, or carries its own permission to reproduce, or is otherwise in the public domain and, therefore, may be reproduced by ERIC without a signed Reproduction Release form (either "Specific Document" or "Blanket").